SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

DATA LAYER NAME: MAY**FL, SEP**INT, etc. Various layer names containing the month, the year and the aquifer.

DATA LAYER DESCRIPTION: Potentiometric surface maps created by the USGS Water Resources Division for the Southwest Florida Water Management District from the mid-1970s to the present

COMMENTS: This document is an attempt to simplify the documentation of over sixty potentiometric surface layers in the SWFWMD database. For further information on a specific potentiometric surface, please contact SWFWMD at the address and phone number provided in this document.

These data were not collected under the supervision of a licensed Professional Surveyor and Mapper.

MAP PROJECTION INFORMATION

Projection: UTM ZONE 17
Datum: NAD 83/90
Horizontal Units: Meters

LINEAGE

Description of Source Material(s)

Name: Various hardcopy maps
Scale (ratio): 1:500000
Projection: Lambert or UTM
Datum: NAD27 or NAD83
Source Media: Mylar
Condition of Media: Varying conditions
Date of Materials: 1975 to 1996
Update Schedule: Not applicable

Creator Organization or Individual

Name: US Geological Survey
Address: 4710 Eisenhower Blvd., Suite B-5, Tampa, FL, 33634-6381
Phone: 813-884-9336

Comments: The majority of the potentiometric maps prior to 1997 were digitized by SWFWMD GIS staff from the mylar originals created by the USGS. Contact SWFWMD to obtain the map name, the USGS Open File Report number and other information for a specific map.

Name: Various digital files
Scale (ratio): Not applicable
Projection: UTM
Datum: HPGN
Source Media: Digital, ArcInfo Export files
Condition of Media: Not applicable
Date of Materials: 1997 to the present
Update Schedule: Not applicable

Creator Organization or Individual

Name: US Geological Survey
Address: 4710 Eisenhower Blvd., Suite B-5, Tampa, FL, 33634-6381
Phone: 813-884-9336

Comments: Potentiometric surface maps since 1997 have been delivered by the USGS as ArcInfo coverages. Additionally, the USGS is going back and digitizing some of the older maps. See the attached USGS metadata under **ANCILLARY INFORMATION** for a representative description of their automation procedures.

Derivation Methods for Data

Pre-automation Compilation

Description: Not applicable

Date of Compilation: Not applicable

Creator Organization or Individual

Name: Not applicable
Address: Not applicable
Phone: Not applicable

Automation Methods

Description: The contours and points were digitized using ArcEdit. The mylar potentiometric surface maps were tied down using six control points based on the intersections of county boundaries. The acceptable RMS error was less than .005 inches. Line and point topology were created using the ArcInfo BUILD command. Attribute items were added to the feature attribute tables and the values were calculated. Refer to the attached USGS metadata document for information of USGS data automation procedures.

Date of Automation: Various dates from the late 1980s to the present

Creator Organization or Individual
Name: Southwest Florida Water Management District
Address: 2379 Broad Street, Brooksville, Florida 34604-6899
Phone: 352-796-7211

Equipment Used: A variety of DEC VAX and DEC Alpha machines accessed from Tektronix terminals and PCs running various terminal emulation programs. ALTEK digitizers were used for all in-house digitizing.

Software Used: Various versions of ArcInfo from version 4.0 to the most current version.

POSITIONAL ACCURACY

Method: Visual inspection of paper check plots against source maps.

Value: Estimated to meet national map accuracy standards for a 1:500,000 scale map, approximately +/-250 meters.

Date Determined: Various

Comments: None

ATTRIBUTE ACCURACY

Method: Visual inspection of paper check plots against source maps.

Value: Approaching 100%

Date Determined: Various

Comments: None

ATTRIBUTE DESCRIPTION

	Attribute Names	Description
Examples:	M95FLEL (May 1995, Floridan aquifer elevation)	Water level in feet
	S98INTEL (September 1998, Intermediate aquifer	Water level in feet elevation)
	S99TUHEL (September 1999, Tamiami-Upper Hawthorne aquifer elevation)	Water level in feet

Comments: All of the potentiometric surface layers have arc attributes. Many also have point attributes. The elevation items in the arc and point attribute tables will have the same name and are defined the same way.

ANCILLARY INFORMATION:

The original USGS metadata document for the September 1998 Floridan aquifer potentiometric surface follows:

Metadata:
Identification_Information:
Citation:
Citation_Information:
Originator: U.S. Geological Survey
Publication_Date: 19990504
Title: Potentiometric Surface of the Upper Floridan Aquifer, West-Central Florida, September 1998

Edition: Version 1.0, May 5, 1999
Geospatial_Data_Presentation_Form: map
Series_Information:
Series_Name:
Issue_Identification:
Publication_Information:
Publication_Place: Tampa, Florida
Publisher: U.S. Geological Survey
Online_Linkage:

Description:
Abstract:
Data layer is an ArcInfo coverage showing the altitude at which water would have stood in a tightly cased well for an area in West-Central Florida during one week in September, 1998.
Purpose:
Data are intended for the use of the Southwest Florida Water Management District. Data are nominally 1:500,000 and should be used at approximately that scale or smaller.

Supplemental_Information:
Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government.
Although this Federal Geographic Data Committee-compliant metadata file is intended to document the data set in nonproprietary form, as well as in ARC/INFO format, this metadata file may include some ARC/INFO-specific terminology. Users are cautioned not to be confused by this terminology. This metadata file should contain enough information to eliminate any confusion caused by the use of ARC/INFO-specific terminology.)

Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date:
Currentness_Reference:

Status:

Progress: Draft
Maintenance_and_Update_Frequency: As Needed

Spatial_Domain:
Bounding_Coordinates:
West_Bounding_Coordinate: -82.84938844
East_Bounding_Coordinate: -81.25472041
North_Bounding_Coordinate: 29.49853354
South_Bounding_Coordinate: 26.46612915

Keywords:
Theme:
Theme_Keyword_Thesaurus: Potentiometric Surface
Theme_Keyword: Groundwater
Place:
Place_Keyword_Thesaurus: Florida
Place_Keyword: West-Central Florida

Access_Constraints:
Draft for Internal Use Only

Use_Constraints:
Data are nominally 1:500,000 Scale and should
be used at approximately that scale or smaller.

Point_of_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: David McCulloch
Contact_Organization: U.S. Geological Survey
Contact_Position: Geographer
Contact_Address:
Address_Type: mailing and physical address
Address: 4710 Eisenhower Blvd, Suite B-5
City: Tampa
State_or_Province: Florida
Postal_Code: 33634
Country: USA
Contact_Voice_Telephone: 813-884-9336 x161

Contact_Facsimile_Telephone: 813-889-9811
Contact_Electronic_Mail_Address: dmccullo@usgs.gov

Data_Set_Credit:
James C. Broska, Arturo Torres

Native_Data_Set_Environment:
Windows_NT, 4.0, Intel
ARC/INFO version 7.2.1

Cross_Reference:
Citation_Information:
Originator:
Publication_Date:
Title:
Geospatial_Data_Presentation_Form:
Series_Information:
Series_Name:
Issue_Identification:
Publication_Information:
Publication_Place:
Publisher:
Online_Linkage:

Data_Quality_Information:
Attribute_Accuracy:
Attribute_Accuracy_Report:

Logical_Consistency_Report:
Chain-node topology present.

Completeness_Report:
Positional_Accuracy:
Horizontal_Positional_Accuracy:
Horizontal_Positional_Accuracy_Report: unknown

Process_Step:
Process_Description:
Well level data are collected from a well network by a field crew during a one week data collection effort. The data are recorded on field sheets, returned to the office where they are reviewed by office staff and the project chief. The data are manually keypunched and entered into the production USGS data bases. A data retrieval is made from the data base and they results are stored in an ASCII file. The ASCII file is imported into an INFO file and that INFO file is joined with a point coverage of the well network. Wells with no data are flagged and not plotted. The well level data and the well locations are plotted on a standard 1:500,000 base map and a USGS hydrologist draws contour lines based on the well level data.
Process_Date: 19981001

Process_Step:
Process_Description:
First draft of metadata created by dmccullo
Process_Date: 19990504

Spatial_Data_Organization_Information:
Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type: String
Point_and_Vector_Object_Count: 5

Spatial_Reference_Information:
Horizontal_Coordinate_System_Definition:
Planar:
Grid_Coordinate_System:
Grid_Coordinate_System_Name: Universal Transverse Mercator
Universal_Transverse_Mercator
UTM_Zone_Number: 17
Transverse_Mercator
Scale_Factor_at_Central_Meridian: implied

Longitude_of_Central_Meridian: implied
Latitude_of_Projection_Origin: implied
False_Easting: implied
False_Northing: implied
Planar_Coordinate_Information:
Planar_Coordinate_Encoding_Method: coordinate pair
Coordinate_Representation:
Abscissa_Resolution: 1.0
Ordinate_Resolution: 1.0
Planar_Distance_Units: Meters
Geodetic_Model:
Horizontal_Datum_Name: North American Datum of 1927
Ellipsoid_Name: Clarke 1866
Semi-major_Axis: 6378206.4
Denominator_of_Flattening_Ratio: 294.98

Entity_and_Attribute_Information:
Overview_Description:
Entity_and_Attribute_Overview:
>
>FCON_S98.AAT:
>
>COLUMN ITEM NAME WIDTH OUTPUT TYPE N.DEC ALTERNATE NAME
> 1 FNODE# 4 5 B -
> 5 TNODE# 4 5 B -
> 9 LPOLY# 4 5 B -
> 13 RPOLY# 4 5 B -
> 17 LENGTH 8 18 F 5
> 25 FCON_S98# 4 5 B -
> 29 FCON_S98-ID 4 5 B -
> 33 ELEV 4 5 B -

Entity_and_Attribute_Detail_Citation: none
The item ELEV is altitude at which water would have stood in tightly cased wells. The contour intervals are 5 and 10 feet. Vertical Datum is National Geodetic Vertical Datum of 1929. There are no hachures in the coverage to indicate depressions, although hachures might be shown on a map published from this coverage.

Distribution_Information:
Distributor:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: U.S. Geological Survey
Contact_Position: Project Chief
Contact_Address:
Address_Type: mailing and physical address
Address: 4710 Eisenhower Blvd, Suite B-5
City: Tampa
State_or_Province: FL
Postal_Code: 33634
Country: USA
Contact_Voice_Telephone: (813) 884-9336
Contact_Instructions: Contact via email
Contact_Electronic_Mail_Address: jfharsh@usgs.gov

Distribution_Liability:

Although these data have been used by the U.S. Geological Survey, U.S. Department of the Interior, no warranty expressed or implied is made by the U.S. Geological Survey as to the accuracy of the data.

The act of distribution shall not constitute any such warranty, and no responsibility is assumed by the U.S. Geological Survey in the use of this data, software, or related materials.

Metadata_Reference_Information:
Metadata_Date: 19990504
Metadata_Review_Date: 19990504
Metadata_Future_Review_Date: 1999
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: U.S. Geological Survey
Contact_Person: David McCulloch
Contact_Position: Geographer
Contact_Address:

Address_Type: mailing and physical address
Address: 4710 Eisenhower Blvd, Suite B-5
City: Tampa
State_or_Province: FL
Postal_Code: 33634
Country: USA
Contact_Voice_Telephone: 813-884-9336 x161
Contact_Facsimile_Telephone: 813-889-9811
Contact_Electronic_Mail_Address: dmccullo@usgs.gov
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata
Metadata_Standard_Version: Version of June 8, 1994
Metadata_Access_Constraints: none
Metadata_Use_Constraints: none